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10/575,944

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Giovanni Mazzarolo

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EXAMINER

RIVERO, ALEJANDRO

ART UNIT

PAPER NUMBER

2618

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,944

Applicant(s)

MAZZAROLO, GIOVANNI

Examiner

Alejandro Rivero

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it contains the word "means" (in lines 2, 4 and 7), which is considered legal phraseology. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 5 and 8 are objected to because of the following informalities:

In claim 5 (line 3), the examiner respectfully suggests replacing "energiziong" with "energizing".

In claim 8 (line 2), the examiner respectfully suggests revising the phrase "performs procedures is able to perform" since it appears to be an inadvertent error.

For the purpose of this examination claim 8 will be treated as reciting "is able to perform", instead of the aforementioned phrase.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "each single inflatable device" in line 4. There is insufficient antecedent basis for this limitation in the claim because the phrase indicates plural inflatable devices and does not allow for only one inflatable (as is the case in claim 1, from which claim 7 depends, where it is recited "at least one inflatable protective device" in the preamble). For the purpose of this examination, claim 7 will be treated as reciting "each single inflatable device of the at least one inflatable protective device" instead of "each single inflatable device".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1, 2, 3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMarco (US 4,977,623) in view of Chang et al. (US 2003/0146610 A1).

Consider claim 1, DeMarco discloses a garment provided with at least one inflatable protective device and adapted to be worn by a person traveling on a moving means (column 1 lines 5-9, column 1 lines 58-65), comprising the following set of parts in addition to a power supply unit (column 2 lines 1-10, column 4 lines 24-50, column 4 lines 63-68): a radio receiver which is adapted to communicate through an identification code with associated remote radio transmitters mounted on said moving means (column 2 lines 10-19, column 4 lines 18-50 where DeMarco discloses sensors mounted on a moving vehicle transmitting differently coded signal specific to each sensor, hence identification code); a trigger circuit for triggering said at least one inflatable protective device in response to a danger signal received from said radio transmitters (column 2 lines 10-30, column 4 lines 18-62); at least one logic unit interfacing said radio receiver which manages identification codes detected by said radio receiver (column 2 lines 20-38, column 4 lines 24-50, where DeMarco discloses logic AND/OR gate circuit where

the received signals are used (managed) to determine if deployment of inflation bag is necessary).

DeMarco does not disclose non-volatile memories and where the logic unit is programmable and stores in at least one of said non-volatile memories the identification codes and enables the person wearing the garment to select, via a user interface, a specific code among those available in said memory.

Chang et al. disclose non-volatile memory (buffer, identification key module) and where the logic unit (control unit) is programmable and stores in at least one of said non-volatile memories the identification codes (serial numbers) and enables the person wearing the garment to recognize a corresponding motor vehicle in which he/she rides (paragraphs [0035]-[0049], [0056]-[0059]) and where a user selects, via a user interface, a specific code among those available in said memory (paragraphs [0035]-[0049], [0056]-[0059] where Chang et al. disclose an occupant (user) inserting (user interface) or bringing into contact (user interface) an identification key sensing means and a key sensing module, thus selecting the vehicle in which he/she rides).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a programmable logic unit is and store in at least one of non-volatile memories the identification codes and enable the person wearing the garment to select, via a user interface, a specific code among those available in said memory as taught by Chang et al. in the device of DeMarco since it would be advantageous to ensure compatibility between a portable airbag and the vehicle being operated even when the user operates different vehicles so that the user is protected by the portable

airbag even using different vehicles (as suggested by Chang et al. in paragraphs [0035]-[0036]).

Consider claims 2, DeMarco in view of Chang et al. disclose all the limitations as applied to claim 1 above and also disclose wherein said at least one programmable logic unit further interfaces said trigger circuit and activates the same trigger circuit in response to a danger signal received from said radio transmitter (column 2 lines 1-38, column 4 lines 18-62 of DeMarco, where DeMarco discloses logic AND/OR gate circuit where the received signals are used (managed) to determine if deployment of inflation bag is necessary and also disclose triggering deployment in response to trigger signals from crash (danger) sensors).

Consider claim 3, DeMarco in view of Chang et al. disclose all the limitations as applied to claim 1 above and also disclose wherein said radio receiver is constituted by the cascade formed by a radio receiver and a decoder (figure 4 elements 30 and 32, column 2 lines 10-19, column 4 lines 18-50 of DeMarco, where DeMarco discloses sensors mounted on a moving vehicle transmitting differently coded signal specific to each sensor, which are received and detected/converted/integrated (decoded) by matched filters).

Consider claim 5, DeMarco in view of Chang et al. disclose all the limitations as applied to claim 1 above and also disclose wherein the power-supply unit is a battery included in the garment for energizing said at least one programmable logic unit and the components interfacing therewith (column 2 lines 1-10, column 4 lines 24-50, column 4 lines 63-68 of DeMarco).

Consider claim 7 (and the rejection under second paragraph of 35 U.S.C. 112 above), DeMarco in view of Chang et al. disclose all the limitations as applied to claim 1 above and also disclose wherein said user interface enables the wearer of the garment to program in said at least one programmable logic unit the control signals to be sent to said trigger circuit, thereby managing and controlling each single inflatable device of the at least one inflatable protective device separately (paragraphs [0035]-[0049], [0056]-[0059] of Chang et al., where Chang et al. disclose an occupant (user) inserting (user interface) or bringing into contact (user interface) an identification key sensing means and a key sensing module, thus selecting the vehicle in which he/she rides, hence by the user selecting the vehicle the user has programmed the specific airbag device to be managed/controlled with respect to the vehicle and has selected that trigger signals from that vehicle be sent to the airbag device).

7. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMarco in view of Chang et al. as applied to claims 1 and 3 above, and further in view of Berstis (US 6,198,996 B1).

Consider claims 4 and 9, DeMarco as modified by Chang et al. disclose all the limitations as applied to claims 1 and 3 above and also disclose user interface (paragraphs [0035]-[0049], [0056]-[0059] of Chang et al., where Chang et al. disclose an occupant (user) inserting (user interface) or bringing into contact (user interface) an identification key sensing means and a key sensing module) and programmable logic unit (paragraphs [0035]-[0049], [0056]-[0059] of Chang et al., where Chang et al. disclose an occupant (user) inserting (user interface) or bringing into contact (user

interface) an identification key sensing means and a key sensing module, thus selecting the vehicle in which he/she rides, hence by the user selecting the vehicle the user has programmed the specific airbag device to be managed/controlled with respect to the vehicle).

DeMarco in view of Chang et al. do not disclose in the user interface; at least one push-button; a display and a related driving circuit and where the programmable logic unit interfaces with sound or mechanical alarm indicators.

Berstis discloses at least one push-button, a display and a related driving circuit and interfacing with sound or mechanical alarm indicators (column 5 line 16- column 6 line 31, column 8 lines 44-52, column 10 line 36- column 12 line 42, column 15 line 33- column 16 line 17, column 20 lines 49-62 and figure 18, where Berstis discloses a touch pad and number pad (push-button) and displaying information to a user (hence a related driving circuit is inherent since it is necessary to drive the display) and also disclose alerting the user with audio and visual alerts).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a touch pad or number pad and display information to the user (graphically, using the necessary driving circuit) and alert the user with audio as taught by Berstis in the device of DeMarco as modified by Chang et al. since it would be advantageous for the user to be able to set preferences such as enabling/disabling airbags based on based on safety needs (based on age, height, etc.) and it would be beneficial to the user to be made aware that a collision is likely since it may allow the

user to try to avoid the collision, thus reducing the probability of injuries and/or repair costs (as suggested by Berstis in column 11 line 17- column 12 line 18).

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeMarco in view of Chang et al. as applied to claim 1 above, and further in view of Hagan et al. (US 5,984,350).

Consider claim 6, DeMarco in view of Chang et al. disclose all the limitations as applied to claim 1 above and also disclose at least a programmable logic unit (paragraphs [0035]-[0049], [0056]-[0059] of Chang et al., where Chang et al. disclose an occupant (user) inserting (user interface) or bringing into contact (user interface) an identification key sensing means and a key sensing module, thus selecting the vehicle in which he/she rides, hence by the user selecting the vehicle the user has programmed the specific airbag device to be managed/controlled with respect to the vehicle).

DeMarco in view of Chang et al. do not disclose wherein it is able to operate in a state of low energy consumption.

Hagan et al. disclose wherein it is able to operate in a state of low energy consumption (column 2 lines 57-63, column 3 lines 1-3, column 3 line 52- column 4 line 28, column 5 lines 23-41, column 6 lines 5-20, column 7 lines 1-24 where Hagan et al. disclose diagnostic circuitry checks and extending battery life).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to operate in a state of low power consumption as taught by Hagan et al. in the device of DeMarco in view of Chang et al. in order to extend battery life since

battery service life is a crucial aspect to a system that is to operate with no other source of operating power (as suggested by Hagan et al. in column 6 lines 58-63).

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeMarco in view of Chang et al. as applied to claim 1 above, and further in view of Okano (US 5,155,376).

Consider claim 8, DeMarco in view of Chang et al. disclose all the limitations as applied to claim 1 above and also disclose at least a programmable logic unit (paragraphs [0035]-[0049], [0056]-[0059] of Chang et al., where Chang et al. disclose an occupant (user) inserting (user interface) or bringing into contact (user interface) an identification key sensing means and a key sensing module, thus selecting the vehicle in which he/she rides, hence by the user selecting the vehicle the user has programmed the specific airbag device to be managed/controlled with respect to the vehicle).

DeMarco in view of Chang et al. do not disclose wherein it is able to perform a safety check of the voltage of the power supply unit.

Okano discloses wherein it is able to perform a safety check of the voltage of the power supply unit (column 1 line 44- column 2 line 20, column 3 line 57- column 4 line 32).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform a safety check of the voltage of the power supply unit as taught by Okano in the device of DeMarco as modified by Chang et al. in order to ensure that the safety device is in an available condition so that it can be made to operate assuredly in the event of a collision and in order to determine any malfunctions

in the energy reservoir and notify the user (as suggested by Okano in column 1 lines 13-21, column 4 lines 16-32).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeMarco in view of Chang et al. as applied to claim 1 above, and further in view of Kincheloe (US 4,685,151).

Consider claim 10, DeMarco as modified by Chang et al. disclose all the limitations as applied to claim 1 above and also disclose wherein the garment is a jacket (column 1 lines 60-61 of DeMarco) for users of motor vehicles (column 1 lines 58-60, column 5 lines 9-12 of DeMarco).

DeMarco as modified by Chang et al. do not specify motorcycling.

Kincheloe discloses motorcycle safety apparel (figure 1, column 2 lines 30-36, column 3 lines 8-19, column 5 lines 3-12).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply as a motorcycling jacket as taught by Kincheloe the device of DeMarco as modified by Chang et al. since it would be beneficial to motorcyclists to wear added protection to the conventional gloves, helmet and boots, as this would decrease the probability/severity of injury resulting from a motorcycling accident (as suggested by Kincheloe in column 5 lines 3-12, as suggested by DeMarco in column 1 lines 58-65, column 5 lines 9-18).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alejandro Rivero whose telephone number is 571-

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272-2839. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR


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SUPERVISORY PATENT EXAMINER